ENTOMOLOGICAL ITEMS.

A NEW BEE-ENEMY.—According to a correspondent of the *Magdeburger zeitung*, quoted by Dr. Ferdinand Rudow in *Societas entomologica*, *Tabanus bovinus* attacks and kills the honey-bee (*Apis mellifica*) much in the same manner as *Asilus* does.

MR. Albert Koebele, for some time stationed at Alameda, Cal., as an agent of the Division of entomology, U. S. Department of agriculture, has sailed for Australia. His object is to study the parasites of the Cottony-cushion scale, *Icerya purchasi*.

TYLER TOWNSEND. Our correspondent, now assistant in the Division of entomology, U. S. Department of agriculture, who has written formerly over the signature "C: H: Tyler Townsend," informs us that he has decided to drop the given names "C: H:", and to be known hereafter as "Tyler Townsend."

METAL-CUTTING BEETLE.—Mr. F. W. Devoe, in a paper in the July numero of the Journal of the New York microscopical society, describes how *zopherus mexicanus*, a beetle commonly known in Central America under the name "makeche," eats through pewter. Figures of the mouth-parts of the beetle are given.

CHANGE OF TITLE.—The Correspondenzblatt des Entomologishen vereins "Iris" zu Dresden will hereafter appear under the title "Deutsche entomologische zeitschrift, herausgegeben von der Deutschen entomologischen gesellschaft. Lepidopterologische hefte, herausgegeben von dem Entomologischen vereine "Iris" zu Dresden."

VITALITY OF THE LARVA OF DERMESTES.—At the meeting of the New York microscopical society, 4 May 1888, "Mr. F. W. Leggett announced the death of his larva of *Dermestes*, which had withstood, for five months and twenty days, solitary confinement in a closed cell, and had subsisted during that period upon its own cast skins, having moulted five times."

EFFECT OF POISONS ON GYRINUS.—M. V. Brandicott (Bull. mens. Soc. linn. du nord d. l. France, July 1887, v. 8, p. 296), in a review of a paper by M. Charles Richet (Revue scientifique, 1886, v. 37, p. 10–17, 44–49) says:

Gyrinus natator, hatched in a solution of 0.25 per cent of atropin, were better developed and lived longer than others hatched in distilled water.

Adult *Gyrinus* put in poisoned solutions died at the end of 24 hours in veratrin, strychnin, and cinchonin; after 5 days in atropin, and after 12 days in morphin.

POISON-APPARATUS OF THE MOSQUITO. My former notes on this subject (*Science*, 26 August, 1887; *Proceedings of the American Association* 1887) require amendment in the following respects: (1) the poison-fang is simple, being in fact the hypopharynx, as was suspected by Dimmock; (2) the paired branches of the poison-duct run backwards into the prothorax; (3) the secreting glands are in two paired systems, one system in each side of the prothorax. Each system consists of three trifoliate glands, the mid-gland being poisonous, the lateral ones salivary; the three ductules uniting into the branch of the poison-duct of its own side. The other details are as before described. G. MACLOSKIE (*Science* 21 September, 1888, v. 7, p. 144).

RHYNCHOPHORA. Lieut. Thomas L. Casey continues his descriptions of new North American coleoptera in the Annals New York academy of sciences, 1888 v. 4, p. 229–296. In the introductory pages, referring to his collection of Pacific coast beetles, the author says, "it has been my special aim to obtain as large a series as possible of every species, for the purpose of studying variation, and these series have already proved one of the greatest aids in estimating the validity of closely allied forms." It is to be regretted that this quotation cannot apply to the *rhyncophora*, a group where large series are particularly important. Fifty-five new species are described, twenty-five are uniques and of forty-four less than four specimens were at hand when the descriptions were drawn up. Though stated, p. 229. as "issued August

1888" the paper was not received until October.

Non-development of a wing in Melitaea.—A few days ago I captured, in this locality, a specimen of *Melitaea minuta*, Edw. which had the normal appearance except in one respect—that the right lower-wing had failed to expand more than to a very sligh degree, and presented just such an appearance as the wing of a ♀ *Orgyia antiqua*. There can be no doubt that this malformation was due to an abnormal coalescence of the walls of the veins of the wings, and their occlusion in consequence—adding another case to the many already known in which what is quite abnormal and pathological in one species is normal in another; for the so-called apterous females of certain moths may well be supposed to have descended from winged forms, and to be, in fact, perpetuations of a condition which was once as truly pathological in them as it is now in *Melitaea*. The extraordinary variety of *Ocneria dispar*, which has the lower-wings notched, and breeds true in captivity (Entomologist, 1878, p. 170, fig.) is probably of like nature, and further illustrates this phenomenon.—T. D. A. Cockerell, in *Ent. mo. mag.*, Sept., 1888, v. 25, p. 93.

Butterflies of New England. From a prospectus dated Cambridge 1 October 1888, we note the speedy publication of Mr. Samuel H. Scudder's Butterflies of New England. The sample sheets accompanying the prospectus show a handsome page of imperial octavo size printed in clear type with liberal margins. The work will be fully illustrated with 96 plates of which 40 or more will be colored; 17 will be devoted to butterflies, 22 to the early stages, 33 to structural details in all stages of life, 2 to parasites, 19 maps and groups of maps and 3 portraits. A novel and interesting feature is the illustration of the North American distribution of the species upon a separate colored map. The plan of the work includes an introduction treating of the general structure of butterflies in their different stages and he naturet of their metamorphoses, a chapter on their classification, an account of the embryology of one of the common species and the internal anatomy of another. The descriptions will include not merely the perfect form, but when possible the egg, caterpillar in all stages and the chrysalis. Under each species will be given, so far as possible, accounts of the secondary sexual peculiarities, particularly of the scales; the general distribution of the insect, and its special distribution in New England; its haunts and comparative abundance; its selection of places in which to deposit eggs, and the manner of oviposition; the food-plants habits, and nests of the caterpillar; the number of broods and seasons of the insects; its winter life; the habits and characteristics of the flight of the butterfly, with its attitudes when alight; its dimorphism, and other variations; its enemies and its protection from them; and under each species, a list of the points on which additional light is needed as hints for the future observer. The hymenopterous and dipterous parasites attacking the eggs and caterpillars of our butterflies are described by Mr. L. O. Howard and Dr. S. W. Williston.

At first intended to embrace only the butterflies known to occur in New England or its immediate confines, it has been extended so as to include in the descriptions and histories some account of all the butterflies of North America east of the Mississippi, excepting such as are found only in the unsettled parts of Canada or south of Kentucky and Virginia.

The work will be issued in twelve monthly parts beginning with November 1888, each part will contain 8 plates and about 144 pages of text. It will be sold only by subscription for the complete work—$5.00 per part payable on issue, or $50.00 for the whole work if paid before 1 January 1889.

Payments may be made by Draft on New York or Boston, or by Domestic or International Postal Money Order to Samuel H. Scudder, Cambridge, Mass., U. S. A.

Nos. 147–148 were issued 18 August 1888.